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ABSTRACT OF THE DISCLOSURE

An apparatus for forming and disconnecting an electrical path includes a split tine socket that is formed of a high yield strength conducting material or metal and which includes a plurality of tines. Each tine functions as a two stage spring to supply a normal force that urges the tine toward the center of the socket. Each tine includes a first stage that has a smaller inside diameter and is therefore thicker than an adjacent second stage. The outside diameter of both stages includes a taper so that the tines are nearly cylindrical when fully mated with a pin. The second stage includes a reverse taper whereby it has a larger inside diameter proximate the first stage than at an opposite end proximate a tip, which ensures that physical, and therefore electrical, contact with the pin will occur at the tip of the tine. The first stage is in electrical contact with a socket contact portion that is typically crimped or soldered onto a wire. A plurality of sockets are typically included in a connector. Each tine includes an inside radius that is less than the radius of the pin that is intended to mate with the socket and therefore, each tine forms two longitudinal patches of electrical contact with the pin at the outside edges of each tine.

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